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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/518,435 | 07/01/2005 | Christophe Ripoll | 262367US2XPCT | 7951 |

22850 7590 11/02/2006

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EXAMINER

ROSENAU, DEREK JOHN

ART UNIT PAPER NUMBER

2834

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/518,435

Applicant(s)

RIPOLL, CHRISTOPHE

Examiner

Derek J. Rosenau

Art Unit

2834

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 03 October 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: _____.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See attachment.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☒ Other: attachments

DANIEL SCHUBERT
SUPERVISOR, PATENT EXAMINER
TECHNOLOGY CENTER 2800

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3 October 2006 have been fully considered but they are not persuasive. Applicant argues that Yamada et al. does not teach that the chopping frequency can be adjusted in the ranges of: less than twice the resonant frequency, greater than half the resonant frequency, and between half the resonant frequency and twice the resonant frequency. However, Yamada et al. does teach that the chopping frequency can be adjusted in order to control the amount of charging. As the resonant frequency would remain constant, the ratio of the chopping frequency to the resonant frequency would change as the chopping frequency is changed. As taught by Branham (US 6181073) it is well known for the chopping frequency to be at the resonance frequency (column 3, lines 30-34). Accordingly, at the time of invention, it would have been obvious to a person of ordinary skill in the art to set the chopping frequency of the device of Fabijanski as modified by Rueger et al. and Yamada et al. at the resonant frequency. As the chopping frequency is the same as the resonant frequency, this would place the chopping frequency within all of three of the ranges mentioned above. Applicant argues that Fabijanski and Rueger et al. do not disclose or suggest "a current flowing in the load is a periodic signal whose phase is advanced relative to the voltage across the terminals of the load" or "a current flowing in the load is a periodic signal whose phase is retarded relative to the voltage across the terminals of the load." However, these phase differences are simply determined by the impedances of the circuits, which in turn are determined by the capacitive values of the

Art Unit: 2834

piezoelectric elements and the value of the inductor. It has long been held that the mere optimization by routine experimentation is obvious (*In re Aller*, 105 USPQ 233). At the time of invention, it would have been well known to a person of ordinary skill in the art to adjust the phase difference between the current and voltage by adjusting the impedances of the circuit components in order to achieve the desired result. Applicant argues that Fabijanski does not disclose the timing of the switches as specified in claims 14, 16, and 17. While this is true, these claims only require that "the bridges circuits are configured to be activated ..." The timing sequences provided in these claims do not define any structural elements, and as the bridge circuit of Fabijanski is the same as that of the present application, the bridge circuit of Fabijanski is configured to provide the same timing of the switches.

2. Applicant's arguments, see Applicants Arguments/Remarks Made in an Amendment, filed 10/3/06, with respect to the specification have been fully considered and are persuasive. The objection to the specification has been withdrawn.

3. Applicant's arguments, see Applicants Arguments/Remarks Made in an Amendment, filed 10/3/06, with respect to claims 11 and 15 have been fully considered and are persuasive. The objections to claims 11 and 15 have been withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek J. Rosenau whose telephone number is 571-272-8932. The examiner can normally be reached on Monday thru Thursday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Derek J Rosenau
Examiner
Art Unit 2834

DJR
10/19/06

